APPENDIX B3

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 * international treaties. Unauthorized reproduction or
 * distribution of this program, or any portion of it, may
 * result in severe civil and criminal penalties, and will
 * be prosecuted to the maximum extent possible under the law.
 * Add the following functions for built-in Array class
   // Push an element into a stack
Array.prototype.push = function (obj)
    this(this.length++) = obj;
   // Pop an element into a stack
Array.prototype.pop = function ()
   var ret = this[this.length-1];
    if (this.length > 0) --this.length;
   return ret;
}
   // Reset a stack
Array.prototype.reset = function ()
    this.length = 0;
   // Return a string after joining all elements
Array.prototype.str = function ()
   var str = "";
    for (var i=0; i<this.length; ++i)</pre>
        str += this[i];
   return str;
}
    // Extract a section of array (including 'from' & 'to' elements)
    // Return a string after joining extracted elements
```

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// If "to" not specified, extract until the last element.
Array.prototype.section = function (from, to)
   if (typeof to == "undefined") to = this.length;
   var str = "";
   for (var i=from; i<=to && i<this.length; ++i)</pre>
       str += this(i);
   return str;
}
   // Null a section of array (including 'from' & 'to' elements)
   // If "to" not specified, nullify until the last element.
Array.prototype.null section = function (from, to)
   if (typeof to == "undefined") to = this.length;
   for (var i=from; i<=to && i<this.length; ++i)</pre>
       this(i) = "";
}
 * Codes added to work with NGS
function FileClass() {};
FileClass.prototype.byteToString = function (ch)
   return ch;
var File = new FileClass();
/********************
 * Codes added to work with NGS
                 ***************
function error (msg)
   return rjs_error(msg);
 * Alert utilities
function rjs_alert(str)
   alert(str);
function rjs_debug(str)
```

```
// alert("debug: " + str);
}
function rjs_info(str)
   // alert("info: " + str);
function rjs_warn(str)
   // alert("warning: " + str);
function rjs_error(str)
   alert("RJS error: " + str);
   rjs Error = true;
   return false;
/************************
 * Global variables
 ***************
                                // error status
var rjs Error = false;
                                // tokens of a statement
// all statements
var rjs_Tokens = new Array();
var rjs_Stmts = new Array();
var rjs_AssignmentState = "";
                                // "", lhs, rhs of =
                                // in, out of []
var rjs_BracketState = "out";
var rjs_CallState = "";
var rjs_LayerState = "";
                                 // "", doc
                                // for inserting "rmi_xlateURL(*)"
var rjs_XUrl_on = false;
var rjs XUrl setLocationTail = ""; // stores a matching tail for
"rmi setLocation("
var rjs_XCookie_on = false;
                                 // for inserting "rmi_setCookie(*)"
                                // for inserting "rmi_xlateURL(*)"
var rjs_XAction_on = false;
for "*.action="
                                // for inserting "rmi_xlate(*)"
var rjs XInnerHtml on = false;
/**********************
 * Global variables - stacks storing token positions
 * Each element of rjs_*_head stores the 1st token position of a chain
 * Each element of rjs_*_tail stores the last token position of a chain
 * Each element of rjs_*Func_pos stores the function position
 * Each element of rjs_*_nesting stores a counter for tracking nesting
 ****************
var rjs_Open_head = new Array();
var rjs_Open_tail = new Array();
.var rjs_OpenFunc_pos = new Array();
```

```
var rjs_Write_head = new Array();
var rjs_Write_tail = new Array();
var rjs_WriteFunc_pos = new Array();
var rjs_Frames_head = new Array();
var rjs_Frames_tail = new Array();
var rjs_FramesObj_pos = new Array();
var rjs_Replace_head = new Array();
var rjs_Replace_tail = new Array();
var rjs_ReplaceFunc_pos = new Array();
var rjs_Domain_head = new Array();
var rjs_Domain_tail = new Array();
var rjs_Location_head = new Array();
var rjs_Location_tail = new Array();
var rjs_Cookie_head = new Array();
var rjs_Cookie_tail = new Array();
var rjs_XUrl_nesting = new Array();
var rjs_XCookie_nesting = new Array();
var rjs_XAction_nesting = new Array();
var rjs_XInnerHtml_nesting = new Array();
```